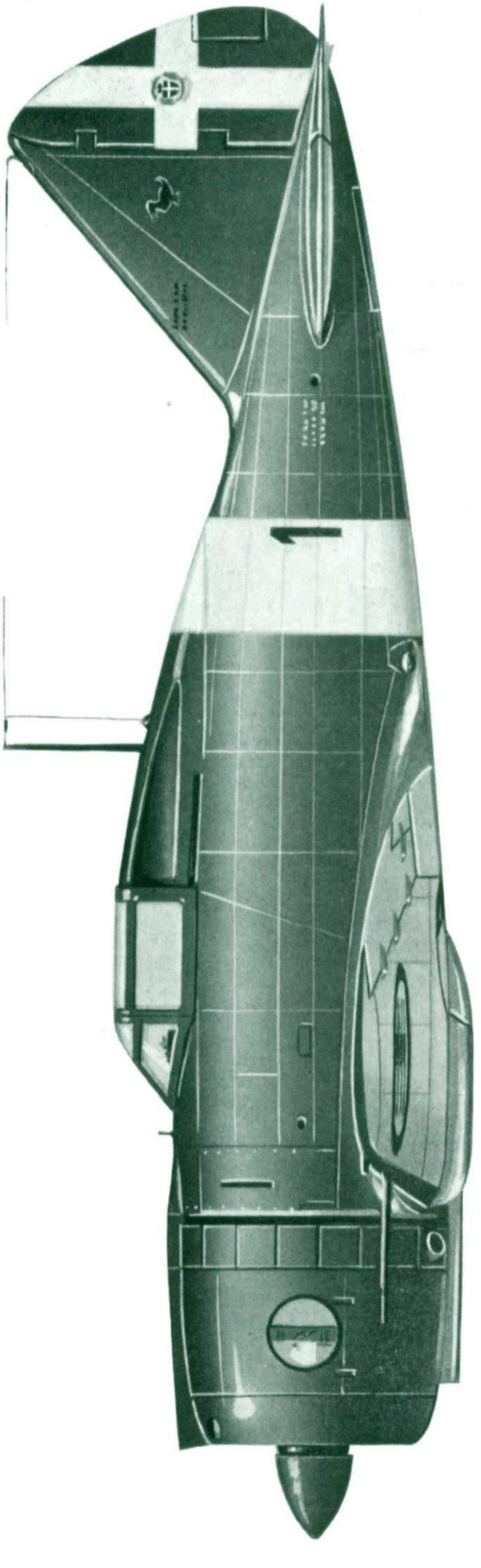
PROFILE
PUBLICATIONS

The Reggiane Re.2000

NUMBER 123

RETAIL PRICE
UNITED KINGDOM TWO SHILLINGS
UNITED STATES AND CANADA 50 CENTS



The Reggiane Re.2000

by Gianni Cattaneo

Reggiane Re.2000 Series I machines of the Hungarian Air Force's 1/1 Fighter Squadron in 1942. (Photo: the author)

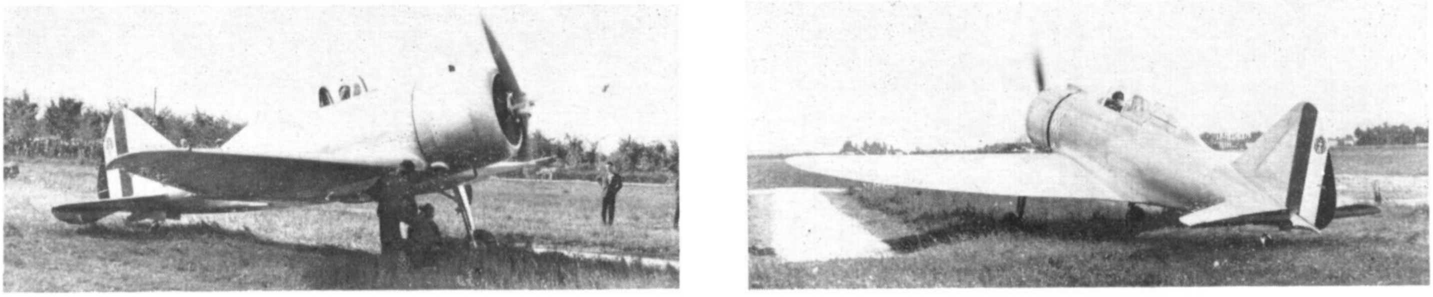
When in 1938 the Italian Air Ministry laid down the "Programme R", a comprehensive policy statement aimed at the quantitative and qualitative improvement of all departments and commands of the *Regia Aeronautica*, the fighter aircraft listed for possible adoption in large numbers were either already in the prototype stage (as with the Fiat G.50 and the Macchi C.202) or in an advanced stage of development, such as the A.U.T.18 and the Caproni-Vizzola F.5. Only one prototype aircraft was designed specifically to compete for the approval of the advisory body controlling this major programme; the Reggiane Re.2000, produced by the Officine Meccaniche Italiane-Reggiane, whose plant was situated at Reggio Emilia in Northern Italy.

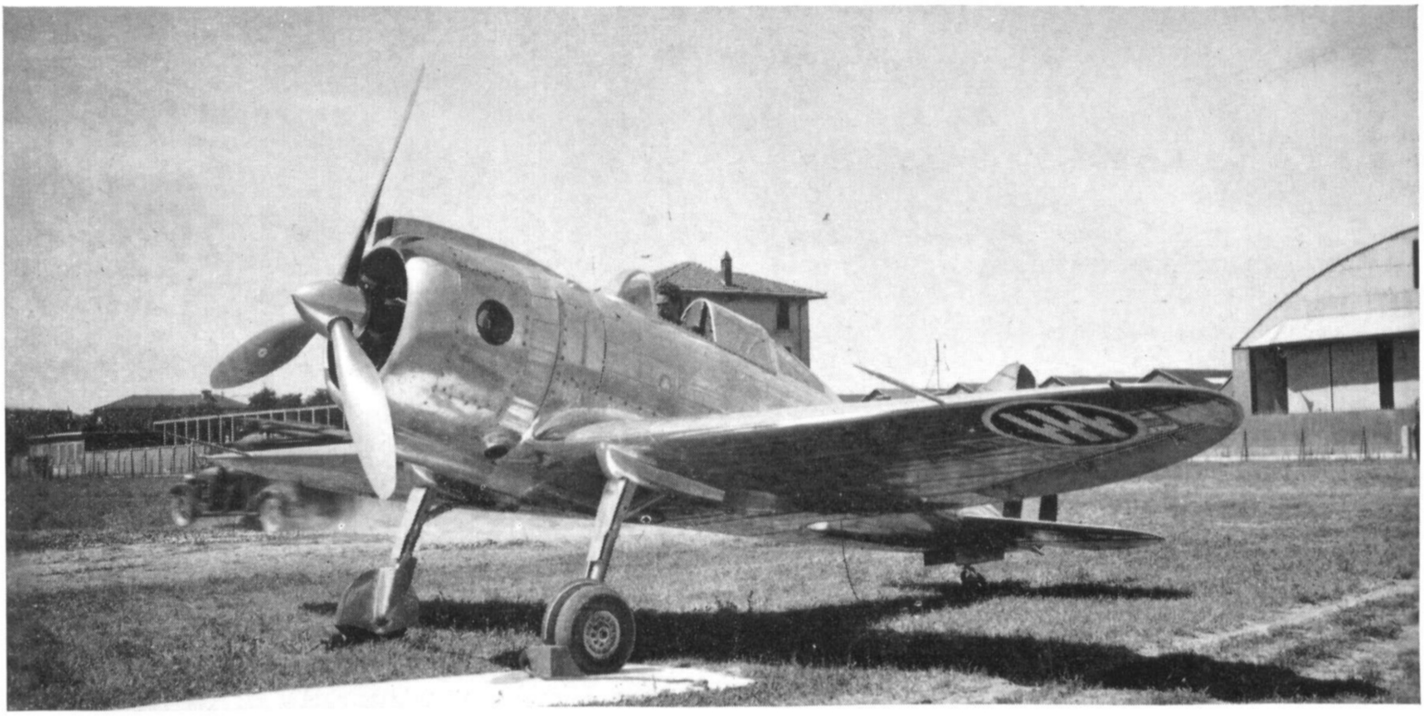
The company's connection with aviation dated back to First World War licence contracts for the production of Caproni bombers. Aeronautical activity was resumed in 1935, when the company entered the huge industrial cartel controlled by the famous designer and industrialist Count Ing. Gianni Caproni. Absorbtion by the Studio Brevetti Caproni provided the Reggiane organisation with a qualified design department; the first products were the Ca.405 Procellaria record aircraft and the Piaggio-derived P.32*bis* bomber. At the same time, licence production of the S.M.79 bomber was put in hand. Led by Ing.Antonio Alessio and Ing.Roberto Longhi, the design department intended to offer the Air Ministry a proposal not only covering but exceeding the requirements of "Programme R". Taking into account the very limited time at their disposal, it was first suggested that the licence-production contract for an American fighter be obtained; but under the energetic direction of Ing.Caproni, a completely new design was prepared in record time. It is true however that the design displayed evidence of fairly strong American influence, due to the previous American experience of one of the designers; certain structural characteristics were strongly reminiscent of the American school, particularly of the Seversky P-35, which was on the point of delivery to the U.S.A.A.C. The Re.2000 design was aerodynamically more sophisticated than its predecessors of two years before, the Fiat G.50 and Macchi C.200; the basic design, however, was handicapped by the chronic lack of a reliable in-line engine of sufficient power, and the Re.2000 thus represented only a limited advance over the C.200. It remained for such later types as the C.202 to take a significant step forward, thanks to the availability of the German Daimler-Benz DB.601 powerplant.

THE RE. 2000 DESCRIBED

Considering the initial limitation of powerplant availability, aggravated by the unsatisfactory be-

Two views of MM 408, the Re.2000 prototype, in its original configuration. The test pilot De Bernardi is seen in the cockpit in the starboard-side view. (Photos: the manufacturer)



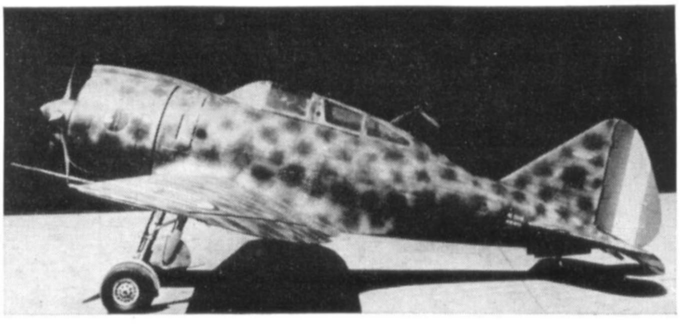


MM 408 photographed in July 1939, in its definitive form. (Photo: G. Apostolo)

haviour of the Piaggio P XI RC40 engine (of dubious performance), the Re.2000 was nevertheless of very compact and balanced design, aerodynamically refined by a careful wind-tunnel programme at the Caproni facility at Milan-Taliedo, with a modern, rational stressed skin airframe. The semi-elliptical wing used a modified N.38 airfoil section and featured a multi-cell structure with stressed skin covering and five spars. The centre-section of the wing incorporated the fuel tanks, with a capacity of 100 Imp. gallons in the forward portion and 53 Imp. gallons reserve in the rear portion. The Frise-type ailerons had static and aerodynamic balance; and the continuous flap was of the split type. The main landing gear retracted by the Curtiss method; during retraction backwards the wheels rotated through 90° to lie flat in the wheel wells. The legs incorporated hydraulic shock absorbers and received side and bending loads direct, longitudinal loads being absorbed by drag struts. A peculiar fairing covered the gear mechanism for retraction and rotation. Pneumatic brakes were fitted, and the tail-wheel was also retractable and steerable. The stressed skin fuselage was of circular section and well streamlined, the clean finish being marred only by the use of protruding head rivetting. The cockpit canopy slid backward, and the large transparencies gave almost unrestricted all-round visibility. The NACA cowling was fitted with hydraulic flaps, and closely covered the Piaggio P XI RC40 engine, rated at 840 h.p. at sea level and 985 h.p. at 13,100 ft. (4,000 m), and driving a three-blade constant speed variable pitch Piaggio propeller. The armament, inadequate as with all Italian fighters of the period, was set at two 12·7 mm. Breda-Safat guns mounted in the upper forward fuselage and firing through the airscrew arc. (The addition of two wing guns was studied but never realized). The Re.2000 was equipped with an oxygen system and a type B.30 radio; provision was made for a gun-camera and a small internal bay could carry 4·4 lb. (2 kg.) incendiary or anti-personnel bombs. Tail surfaces were of metal construction, the control surfaces being fabric-covered.

Piloted by M. de Bernadi, a prominent flyer who had won the 1926 Schneider Cup in America with the Macchi M.39 racer, the prototype Re.2000, serial MM 408, flew for the first time on 24th May 1939 at Reggio Emilia, and displayed good characteristics of speed and manoeuvrability from the outset. Only minor modifications were ordered after the initial programme of factory test flights; the exhausts were corrected, the carburettor air intake over the cowling lengthened and a spinner added. The original round windshield was replaced by a framed one. After the completion of armament tests at the Furbara range, the prototype was delivered in August 1939 to the Experimental Establishment of the Italian Air Force at Rome-Guidonia for official tests. The results of the evaluation programme, conducted for the most part by Colonels Quarantotti and Tondi, were quite flattering; besides good handling, climb and speeds at various altitudes were impressive. Later tests showed that the Re.2000 was more manoeuvrable in dogfights at altitude than the Bf 109E. Not so enthusiastic, however, was the technical evaluation report from the Directorate of Aeronautical Construction of the Air Ministry. The principal drawbacks were judged to be the placing of the fuel tanks in the wing, a vulnerable position for a fighter aircraft; and the integral type of construction of the fuel tanks, rendering them liable to

The prototype during its evaluation programme at the Guidonia Experimental Establishment in August 1939. Pilots Quarantotti and Tondi were enthusiastic about the machine's flight characteristics, but the Construction Directorate objected to the design and position of the fuel cells.
(Photo: Aeronautica Militare)

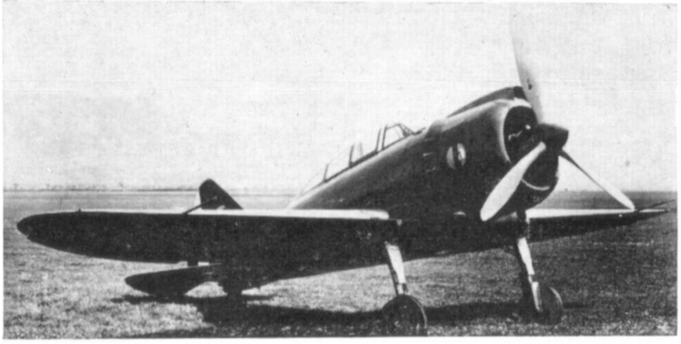


leakage from small structural defects or faulty welding, and causing difficulties in sealing and manufacture. These may have appeared small problems, but they were sufficient cause for the cancellation of the order for twelve pre-production aircraft drafted at the end of the flight programme, and for the abandonment of the instruction to proceed with tooling up for a production run of 188 machines. A proposal by Alessio and Longhi for a return to a conventional three-spar wing with normal tanks was in vain; only the construction of a prototype of this configuration was authorised. (Carrying the serial MM454 and powered by the Piaggio P XIX RC45 engine, this later became the first example of the Re.2002 dive bomber and ground attack aircraft).

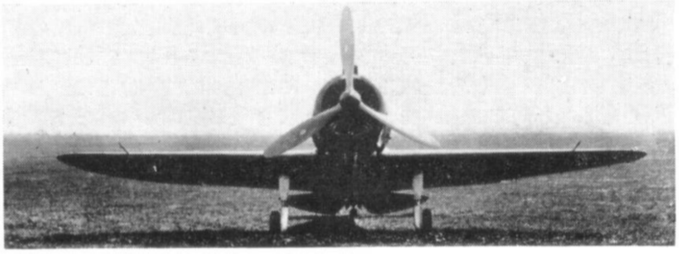
At the same time, the Italian Government granted authorisation to promote export sales of the new fighter to interested foreign countries, and in this field the Re.2000 met with greater success. Detailed accounts of its service outside Italy may be found below; it is interesting to note that only through foreign orders was it possible for the *Regia Aeronautica* to draw on supplies of the aircraft and operate it in various rôles up to 1943.

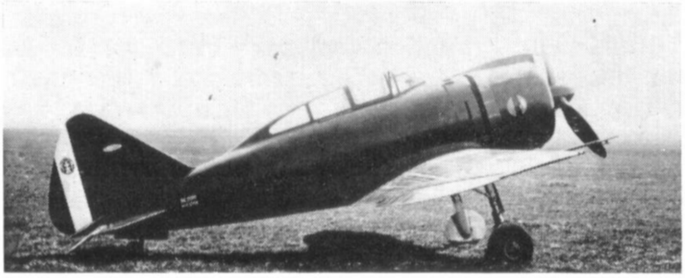
SERVICE BY LAND . . .

The difficulties of supplying the forces in Italian East Africa with modern material became critical in 1941; the air shipment of dismantled CR.42 fighters in specially equipped S.M.82 transports was partially successful, but it was considered the next logical step was to send modern fighters of acceptable performance in direct flight from Italy to Ethiopia. The Macchi C.200 was ruled out on grounds of range, and the only available aircraft for adaption for long-range ferry flights was the Re.2000. By sealing off the cells of the outer wing structure, it was possible to raise the tank capacity to 328 Imp. gallons. To perform practical tests, and considering the growing interest of the *Regia Marina* (Italian Navy) in the possibility of obtaining a modern long range reconnaissance fighter to replace the dangerously obsolete Ro.43 and Ro.44 machines on the catapults of the larger ships of the Fleet, the Italian Government seized 28 export machines off the assembly lines (20 being originally destined for Hungary, eight for Sweden), extra aircraft subsequently being built to make up both orders.

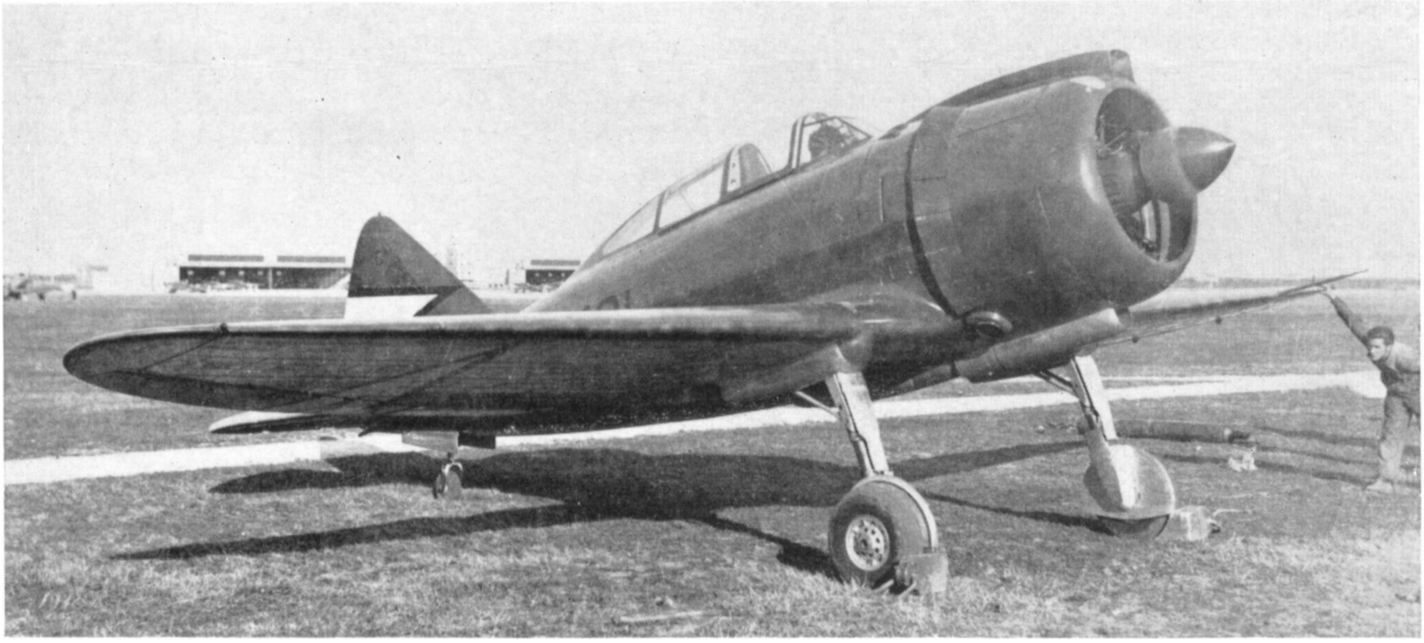


Re.2000 Series I, serial MM 5068, one of the machines commandeered off the assembly line of the Hungarian export batch for the Regia Aeronautica. (Photos: Aeronautica Militare)





Successful tests of the Re.2000 G.A. (*Grande Autonomia*, Long Range) were performed by Col. A. Mantelli, a pilot who had won fame in the Spanish Civil War; but the fortunes of war in East Africa put an end to the ferry-flight project, for which a number of pilots had already volunteered. To perform an operational evaluation of the fighter, five of the seized aircraft were assigned to the *74° Squadriglia* of the *23° Gruppo*, *3° Stormo C.T.* in Sicily early in 1941. Subsequently, in August of that year, the



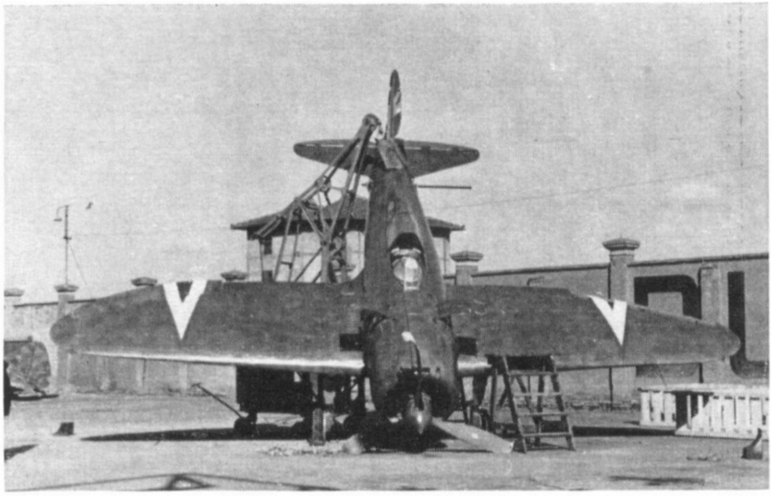
An aircraft of the Hungarian batch in factory-fresh finish. (Photo: the author)

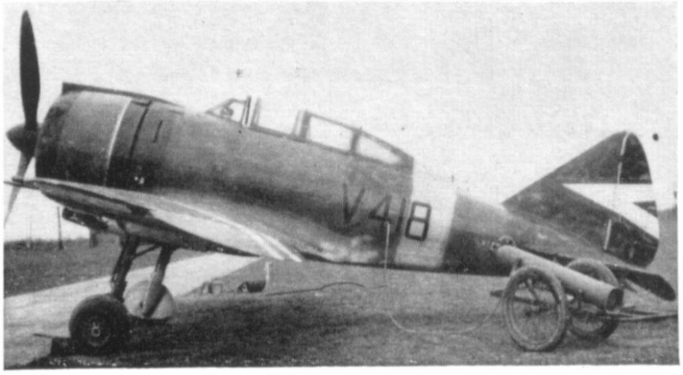
377° Sq. C.T. was formed at Milo (Trapani), to which unit the aircraft of the *74° Sq.* were transferred; in the meantime three of the five had been modified to the long range configuration; and twelve other aircraft of the impounded batch were also supplied to the squadron, already modified. Initially attached to the *23° Gr.*, the squadron became Autonomous in September 1941 and was used primarily in the patrol and convoy escort rôles, operating from Milo, Comiso and Pantellaria. Of the remaining eleven seized machines, one was used as a structural airframe for the construction of the sole prototype of the Re.2003 two-seat reconnaissance aircraft; and the last ten were completed as Re.2000 Series III, fitted with catapult pick-up points and destined for the Air Branch of the Navy, known as the *Aviazione Ausiliaria per la Regia Marina.* (It is interesting that all pilots of machines assigned to this service were Air Force personnel; only the observers in multi-place machines were naval officers).

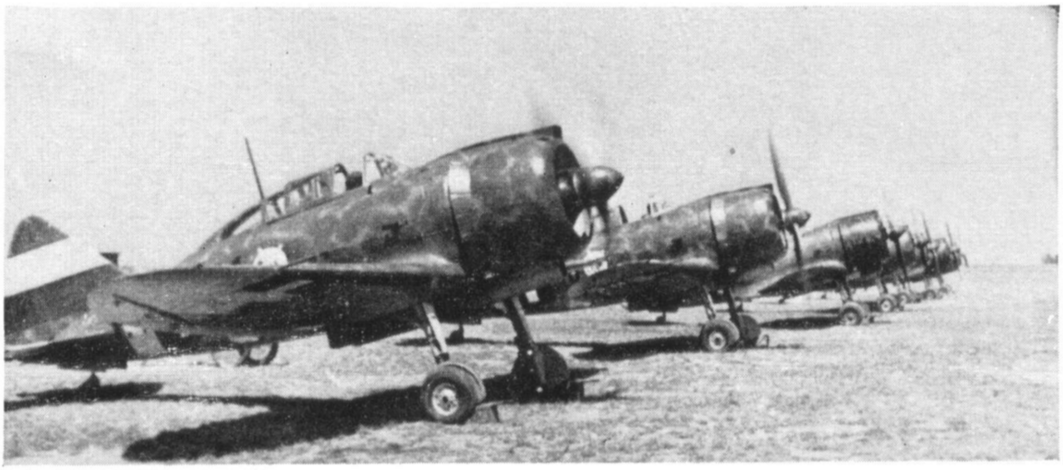
Meanwhile, the *377° Sq.* operated in Sicily; in March 1942 the unit moved to Boccadifalco, the airport at Palermo, for the air defence of the town. Commanded by Capt. L. Marcolini, the squadron was augmented in this period by the supply of a few CR.42's. In the following September the unit gave up its Re.2000's, after 322 operational missions, for Macchi C.200's. The surviving machines were ferried by squadron personnel to the Reggiane plant for "navalising". Modifications in the field during the aircraft's service with the *377° Sq.* included the deletion of the small bomb bay, and the locking of the tail wheel to counteract a certain tendency to swing on landing. It should be noted that in the last months of the units operations with the Reggiane, a small number were received with long range tanks and incorporated the features of the Series III model: solid headrests with scalloping, different radio and a new windscreen. The ten machines concerned, ordered to cover attrition within the squadron, were the only ones to be delivered from an order of thirty. Including the 28 machines seized and the two prototypes, the total number of Re.2000's operated was 40 aircraft.

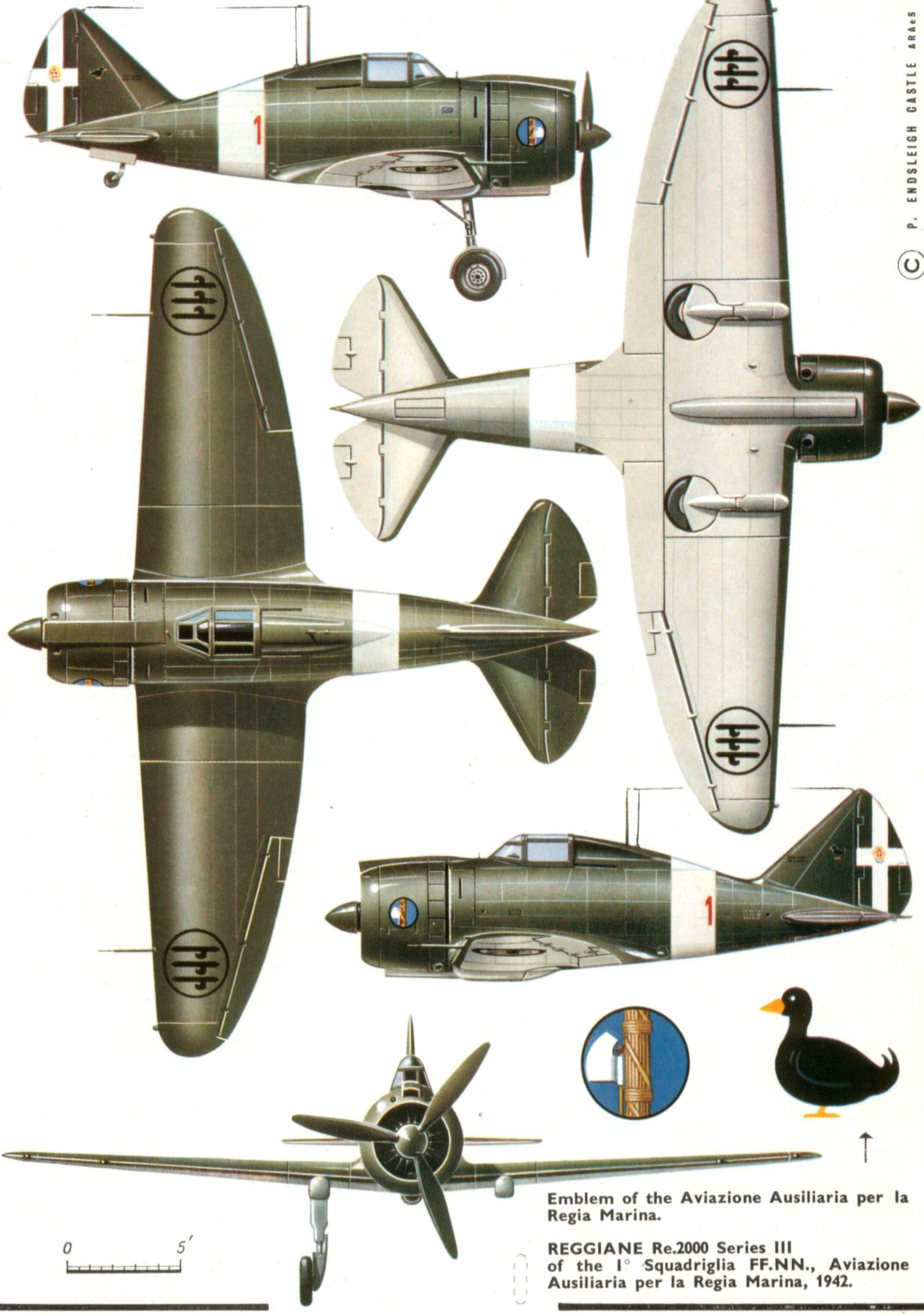
. . . AND BY SEA

When war broke out for Italy in June 1940, the *Aviazione Ausiliaria per la Regia Marina* had on charge 44 Ro.43's and a few Ro.44's, assigned on a two-aircraft-per-ship basis to 19 modern cruisers and at a rate of three aircraft per ship to battleships of the *Vittorio Veneto* class. As stated above, these aircraft were obsolete, and the Re.2000 offered if not a perfect replacement, at least an adequate one. Especially as the war progressed, the *Regia Aeronautica* was relieved to observe that the Navy's fighter requirement did not affect the assembly lines of their own vitally-needed aircraft; so the *Regia Marina* was able to proceed with a re-equipment programme centred on the Re.2000. The last ten examples of the seized batch were modified, as previously stated, for catapult use; they retained the long-range tanks, and four strongpoints were installed, two inboard of the forward landing gear fairings and two aft of the wing roots at the trailing edge. The transparencies behind the sliding canopy were discarded and the solid headrest deeply scalloped to provide some rear vision. The windscreen was slightly modified and new radio and antenna fitted. First catapult trials were carried out at San Elpidio airfield near Perugia late in 1941, the subject being one of the first five commandeered


Mishap to a Hungarian Series I aircraft during its acceptance programme. Note wing markings. (Photo: G. Apostolo)


Re-charging the oxygen storage of a Hungarian Air Force Heja *in 1941. A flight of six machines were sent to the Russian battle front in June of that year to test the type under combat conditions; they were employed mainly on escort and ground-strafing missions.* (Photo: the author)


In 1942 the Hungarian Air Force operated two squadrons of the Independent Fighter Group, 2nd Air Force Brigade on the Russian front with Re.2000's. This illustration shows a line-up of the 1/1 Fighter Squadron's aircraft at Szolnok airfield. Note late-style Hungarian national markings. (Photo: the author)

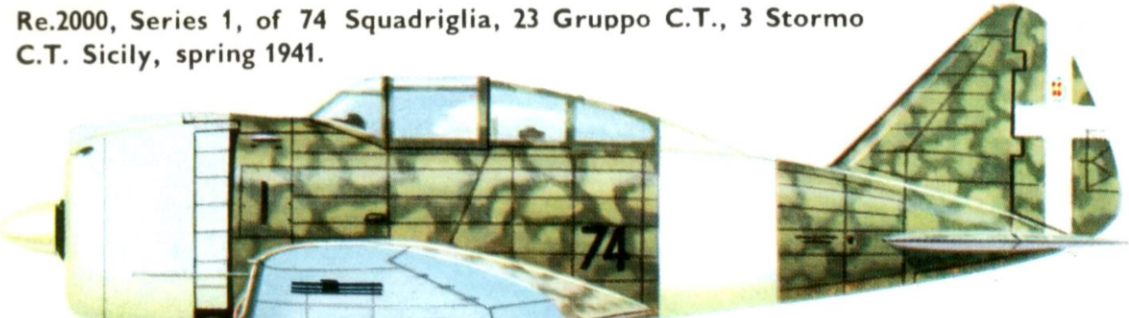


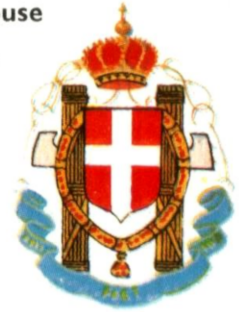
© P. ENDSLEIGH CASTLE ARAeS

Emblem of the Aviazione Ausiliaria per la Regia Marina.

REGGIANE Re.2000 Series III of the 1° Squadriglia FF.NN., Aviazione Ausiliaria per la Regia Marina, 1942.

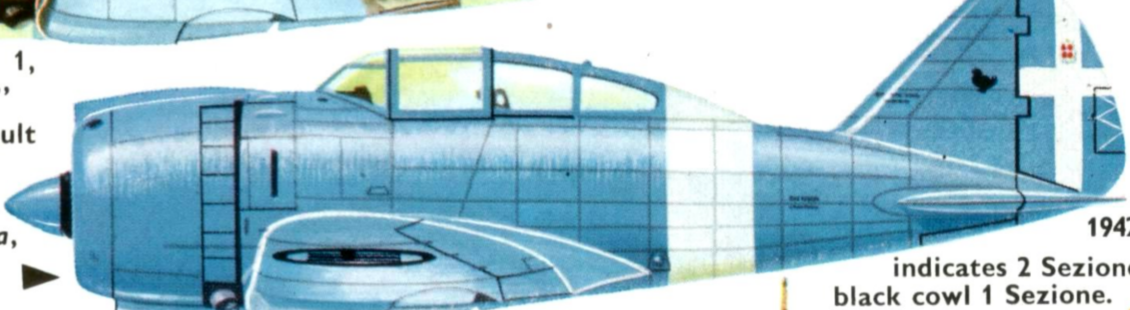
Re.2000, Series 1, of 74 Squadriglia, 23 Gruppo C.T., 3 Stormo C.T. Sicily, spring 1941.



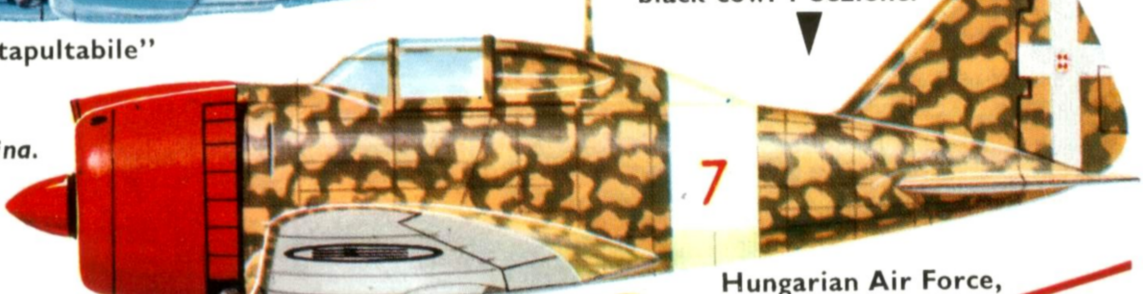


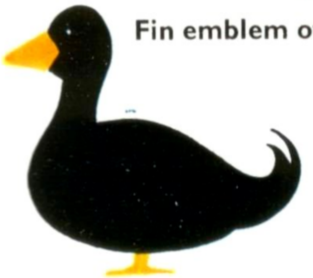
Arms of House of Savoy, rudder marking.

Re.2000, Series 1, "Catapultabile" used for catapult launching trials on battleship *Italia*, February 1942.

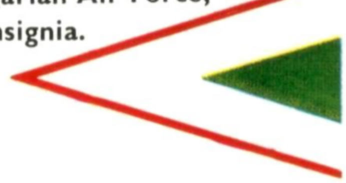


Re.2000 G.A., 377 Squadriglia Autonomo; Palermo, March 1942. Red cowling indicates 2 Sezione, black cowl 1 Sezione.



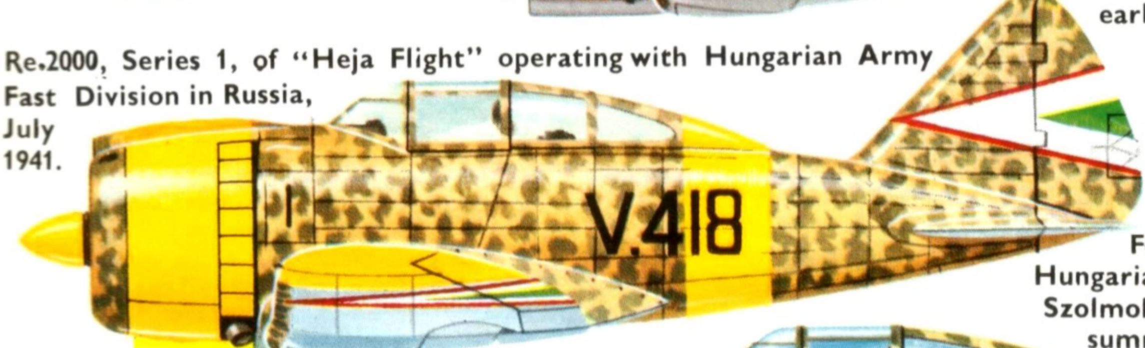


Fin emblem of "Catapultabile" *Marina.*

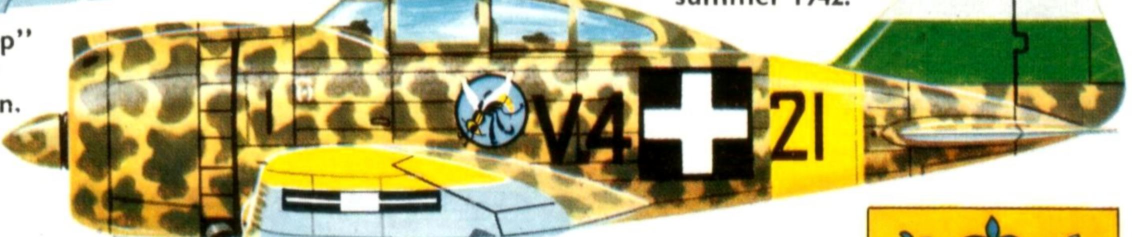


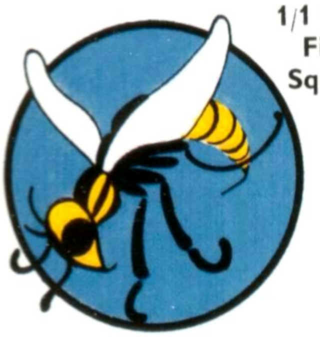
Hungarian Air Force, early insignia.

Re.2000, Series 1, of "Heja Flight" operating with Hungarian Army Fast Division in Russia, July 1941.



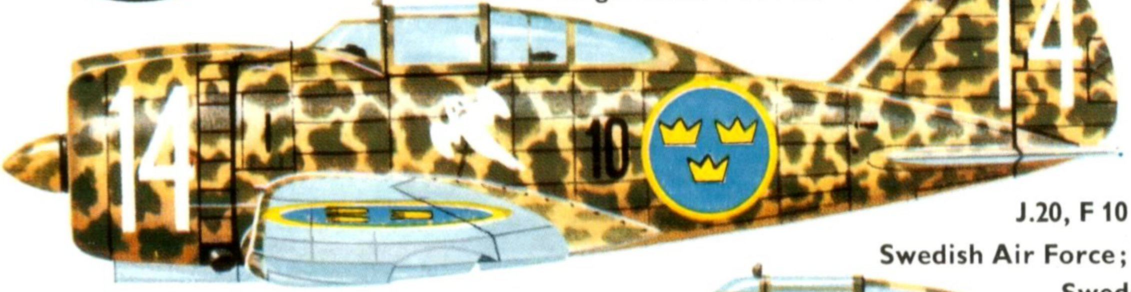
Re.2000, Series 1, of 1/1 Fighter Squadron, Hungarian Air Force; Szolmok, Russia, summer 1942.

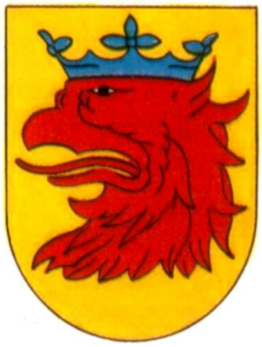




1/1 "Wasp" Fighter Squadron.

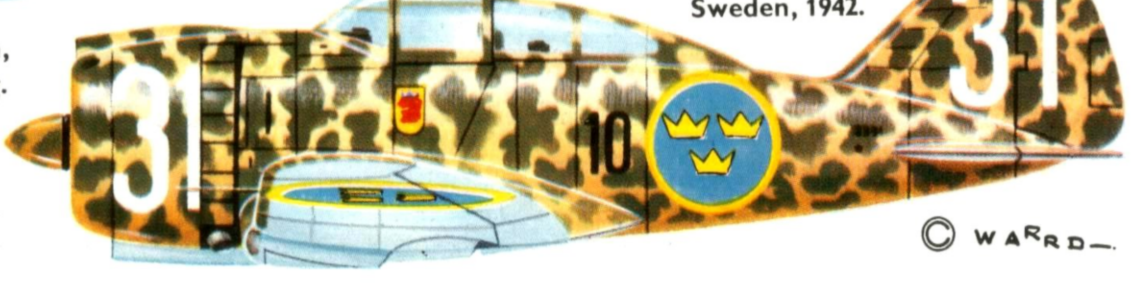
J.20, F 10 Wing, 1 Division, Swedish Air Force; Ängelholm, Sweden, 1942.

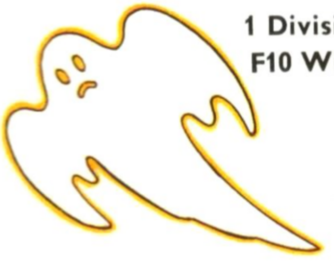




F 10 Wing insignia.

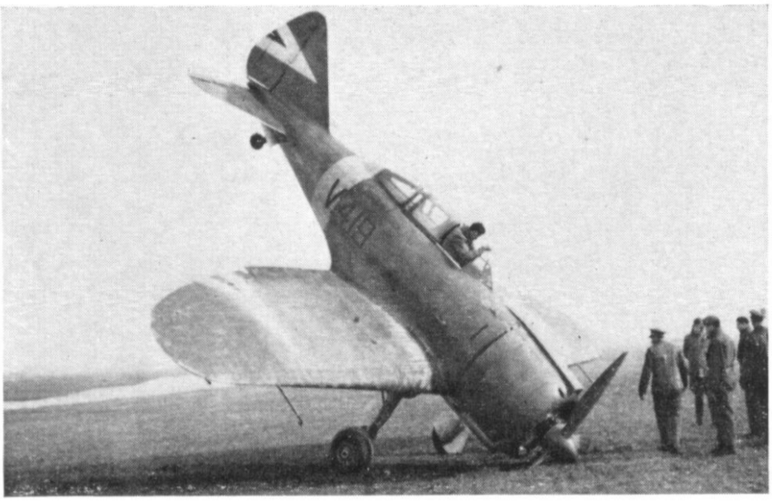
J.20, F 10 Wing, Swedish Air Force; Ängelholm, Sweden, 1942.

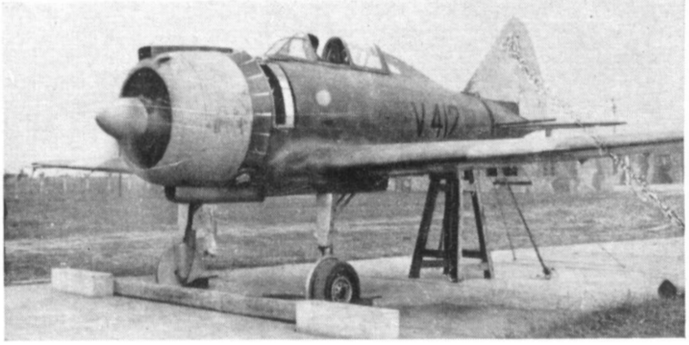




1 Division, F10 Wing.

© WARRD—





The serials of these two Hungarian Air Force Re.2000's show them to be Italian-built machines. The MAVAG-built aircraft carried numbers from V-601 upward. (Photos: the author)

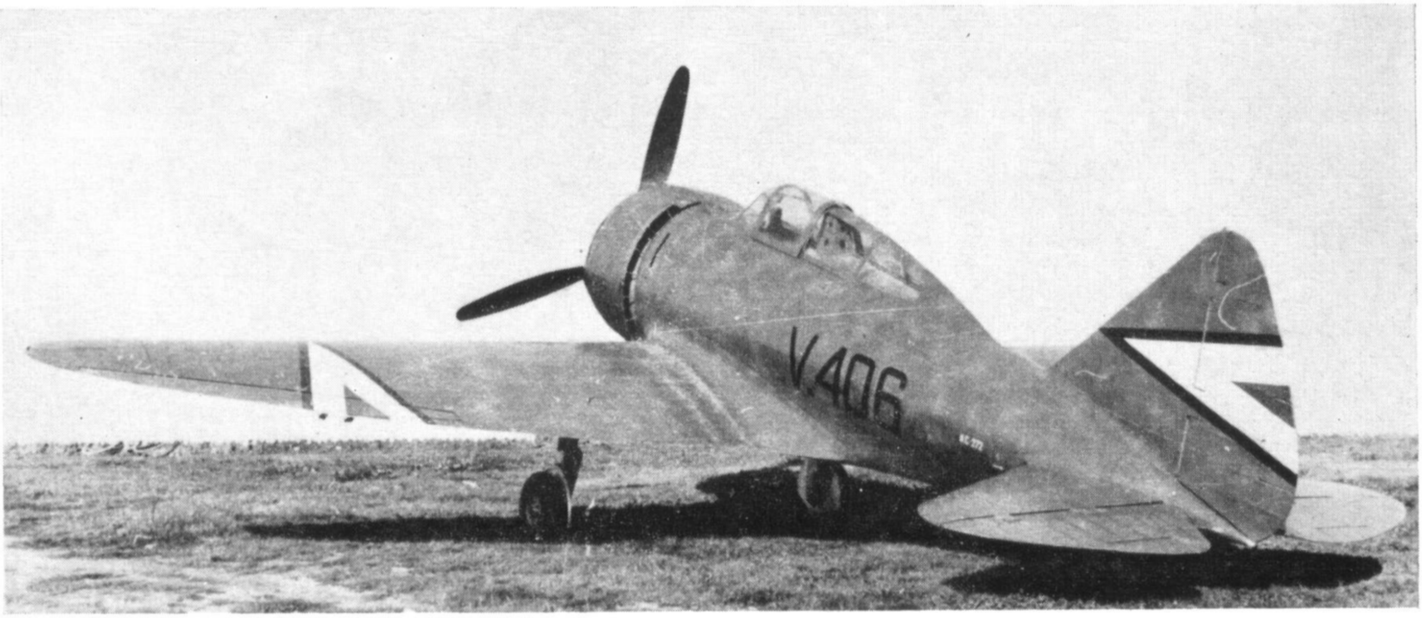
aircraft. Two other aircraft were tested in 1942 aboard the battleships *Vittorio Veneto* and *Roma* (not, as recently published elsewhere, aboard the *Italia*, ex-*Littorio*). These shipboard tests were generally satisfactory, and permitted the evolution of the best launching methods, operational technique, and the setting up of ancillary equipment. Thanks to the much-increased range, the aircraft was able to make landfall on the nearest Italian coastal airstrip after completion of its interception or patrol.

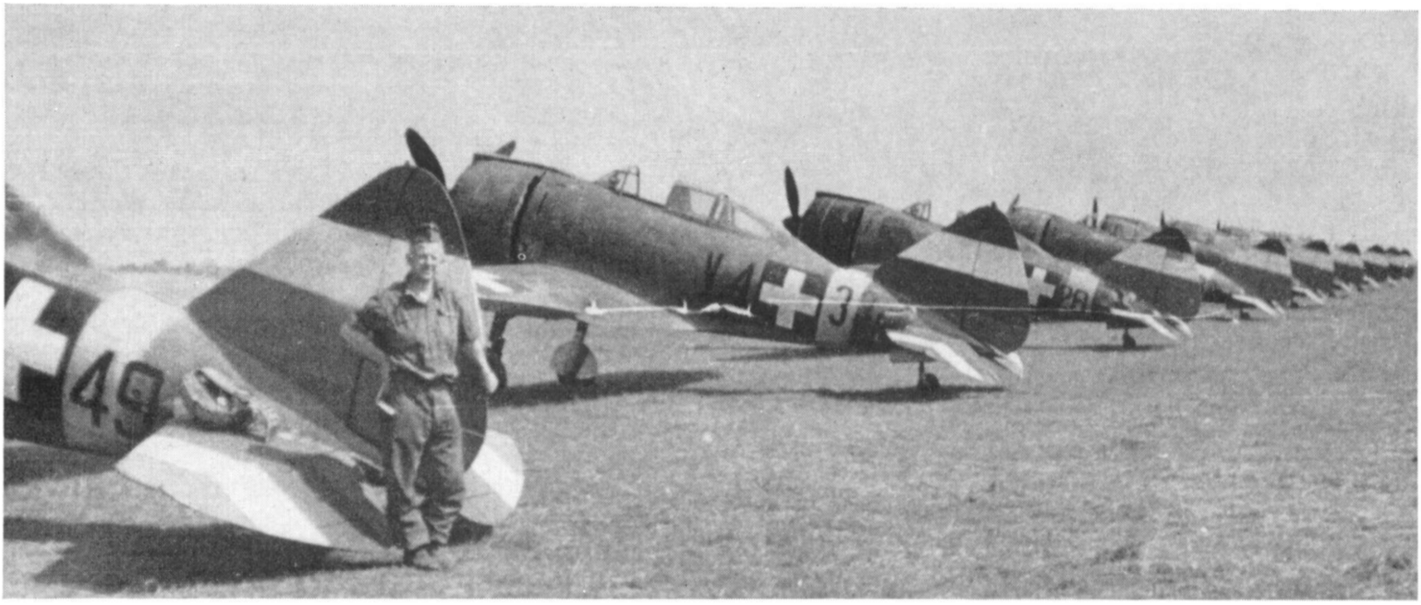
The Reggiane was cleared for service with the *1° Squadriglia FF.NN.* (*Forze Navali*, Naval Forces) but was never used on operations; after the battles of June 1942, the *Regia Marina* had neither the opportunity nor the capability to carry out offensive operations against the British Mediterranean Fleet; moreover, with the Axis withdrawal from North Africa, operations were restricted to the waters round Sicily, Sardinia and the Tirrenian Sea, where land based aircraft could operate more easily under the direction of naval vessels. At the date of the Armistice on 8th September, 1943, the *1° Sq. FF.NN.* had only two Re.2000's on charge, neither serviceable, and two CR.42's; the *2° Sq. FF.NN.* had eleven Ro.43's and three Ro.44's, and the *3° Sq. FF.NN.* nine Ro.43's and three Ro.44's.

EXPORT SALES: BRITISH INTEREST

Following the disappointing cancellation of almost-firm contracts by the Italian Government, Reggiane decided to complete the first series of 188 machines as a private venture in order to be able to offer immediate delivery to such foreign customers as they could secure when official export authorisation came through. The first order secured came from Hungary (see below); and among other countries which attempted to conclude orders due to the imminence of war in Europe were Yugoslavia (negotiations for 50 aircraft and a licence contract); Spain and Switzerland (50 aircraft each); Finland (100 aircraft); and surprisingly enough, Great Britain. In December 1939, during the dubious period of Italian non-belligerence, a British mission led by Lord Hardwick and including Wing Commander H. Thornton of the Air Ministry visited the Caproni factories to study the possibility of purchasing various material; this included Isotta-Fraschini marine engines, 20 mm. anti-aircraft guns, Ca.313 light bombers, Ca.311 trainers and Re.2000 fighters. After evaluation flights by the mission's pilots, Gray and Barnet, an order for 300 machines of the Re.2000 type was confirmed at the end of January 1940. It is astonishing to record that *the German Government signified its approval of this deal* in March 1940, only to rescind its permission the following month. The entry of Italy into the war in June 1940 brought to a standstill negotiations between Lord Hardwick and Count Caproni, aimed at side-stepping the German embargo

The sixth machine of the Hungarian export batch; note details of national marking, and also crash pylon in the rear of the cockpit. (Photo: G. Apostolo)





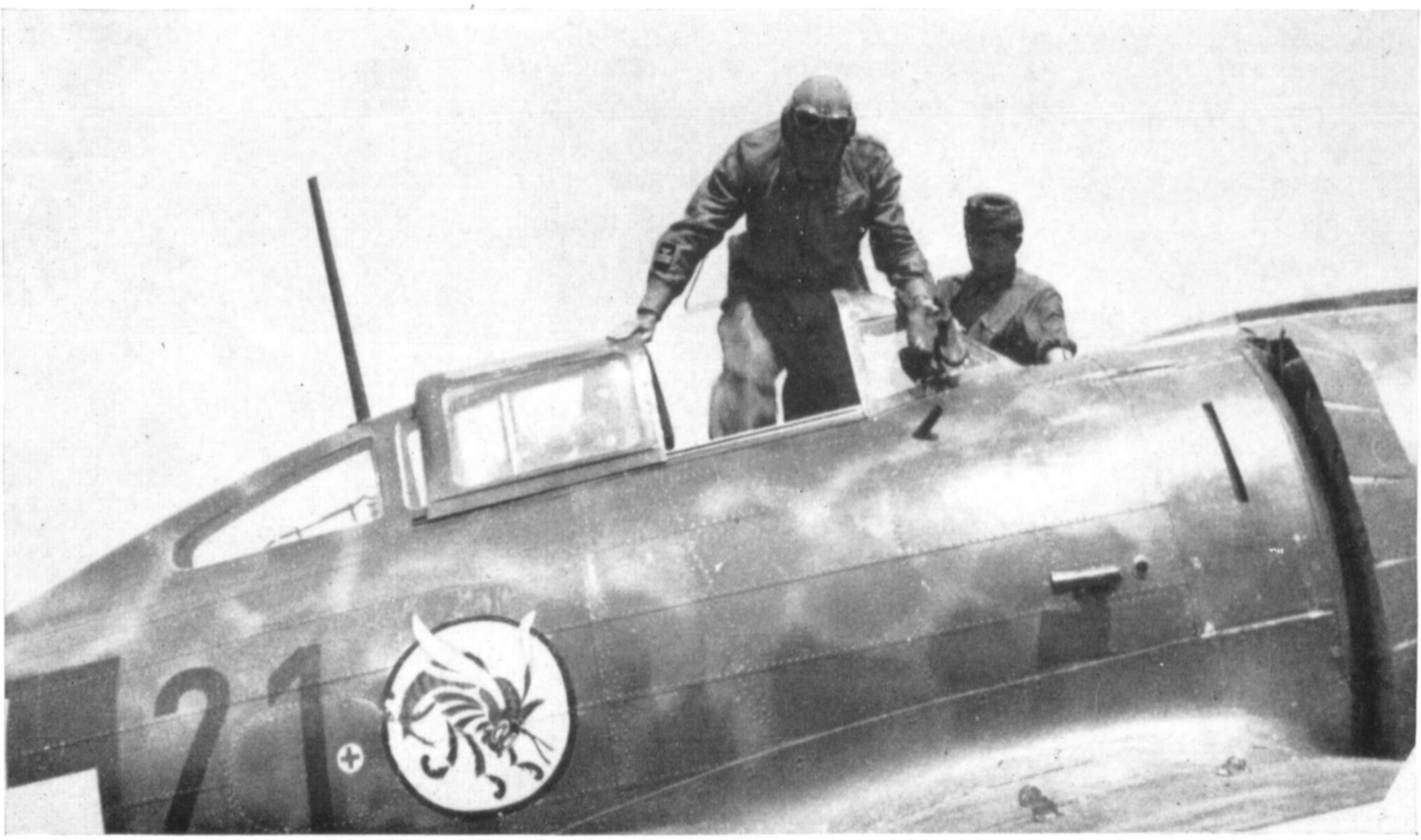
Re.2000's of the Hungarian Independent Fighter Group in Russia display their striped tail surfaces. Commanded by Colonel Csukas, the unit operated on the Eastern Front throughout 1942, but was progressively withdrawn late in the year, the aircraft being relegated to second-line duties as the availability of the Messerschmitt Bf 109 increased. (Photo: the author)

by selling the aircraft "on paper" to Caproni's Portugese subsidiary Soc. Aeroportuguesa, and subsequently passing them to Great Britain.

HUNGARIAN USE

For some years the Hungarian Air Force had been using biplanes of Italian origin such as the Fiat CR.32 and CR.42; and continuing the tradition of Italian equipment, Hungary placed an order in December 1939 for the supply of 70 aircraft with spares, as well as licence production rights and a small number of airframes and detail components for the lead-in local programme. In Hungary the Re.2000 was known as the *Heja*, and was produced by the MAVAG company. The first deliveries of Reggiane-built fly-away aircraft began only four months later in April 1940, when initial examples of the Re.2000 Series I, after testing and acceptance in Italy, were ferried to Hungary by Italian pilots. Completion of the order was carried out before the end of 1941. Local manufacture, on the other hand, was slow to commence due to the lack of machine tools and ancillary equipment; the first MAVAG-built aircraft was not assembled and test-flown until late in 1942. In the meantime the Hungarians had come to share their Italian counterparts' poor opinion of the unreliable Piaggio engine; and it was decided that from the thirty-first aircraft onwards the Gnome-Rhône Mistral Major K 14 would be installed. This power-plant was built under licence in Hungary by the Weiss Manfred concern and was designated WMK 14. (It is worth noting, as a comment on contemporary

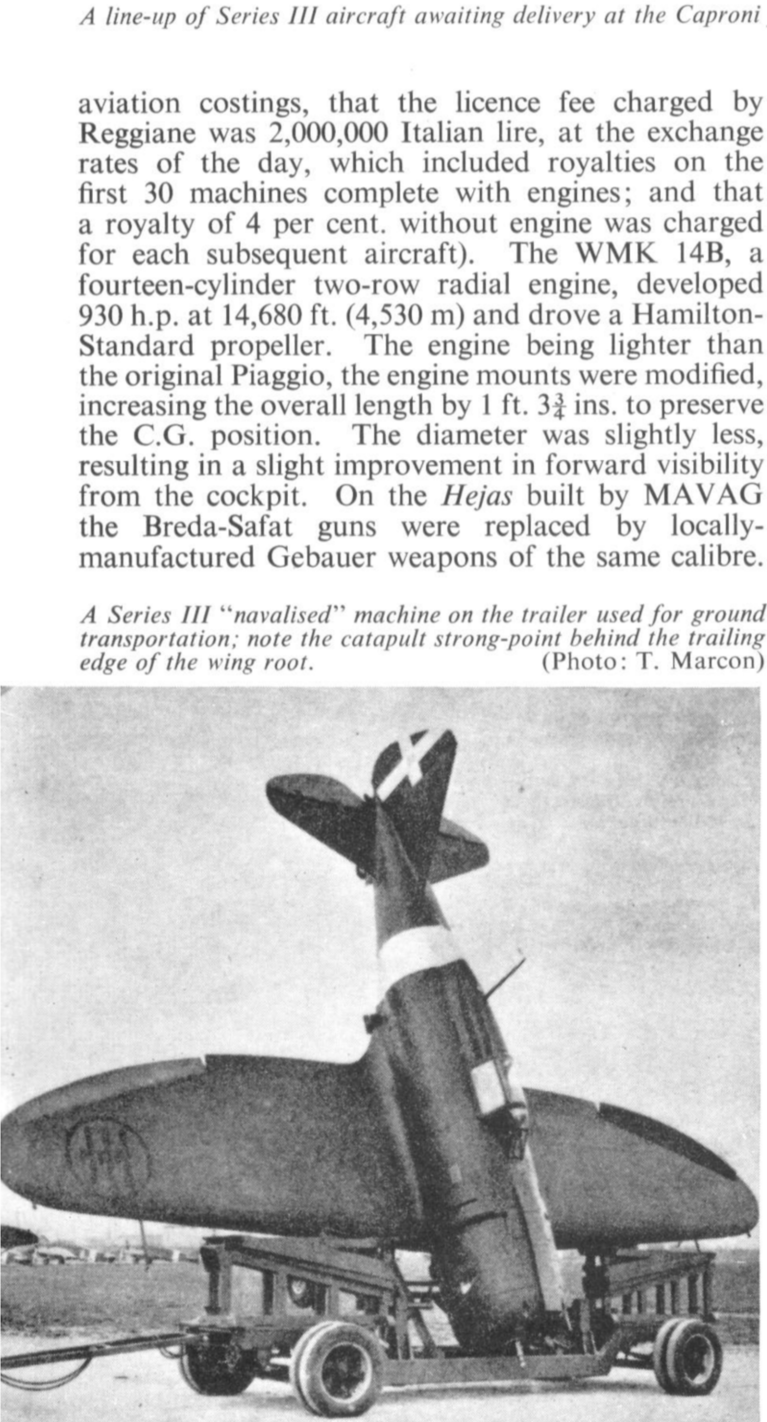
A pilot of the Hungarian 1/1 Fighter Squadron mounts his Re.2000; note "Wasp" emblem of the squadron. (Photo: the author)



A line-up of Series III aircraft awaiting delivery at the Caproni plant. (Photo: the manufacturer)

aviation costings, that the licence fee charged by Reggiane was 2,000,000 Italian lire, at the exchange rates of the day, which included royalties on the first 30 machines complete with engines; and that a royalty of 4 per cent. without engine was charged for each subsequent aircraft). The WMK 14B, a fourteen-cylinder two-row radial engine, developed 930 h.p. at 14,680 ft. (4,530 m) and drove a Hamilton-Standard propeller. The engine being lighter than the original Piaggio, the engine mounts were modified, increasing the overall length by 1 ft. 3¾ ins. to preserve the C.G. position. The diameter was slightly less, resulting in a slight improvement in forward visibility from the cockpit. On the *Hejas* built by MAVAG the Breda-Safat guns were replaced by locally-manufactured Gebauer weapons of the same calibre.

A Series III "navalised" machine on the trailer used for ground transportation; note the catapult strong-point behind the trailing edge of the wing root. (Photo: T. Marcon)



One specimen was assembled and flown in 1942, followed by 86 in 1943 and 105 in 1944, bringing total MAVAG production to 192 in addition to the 70 machines purchased direct from Reggiane.

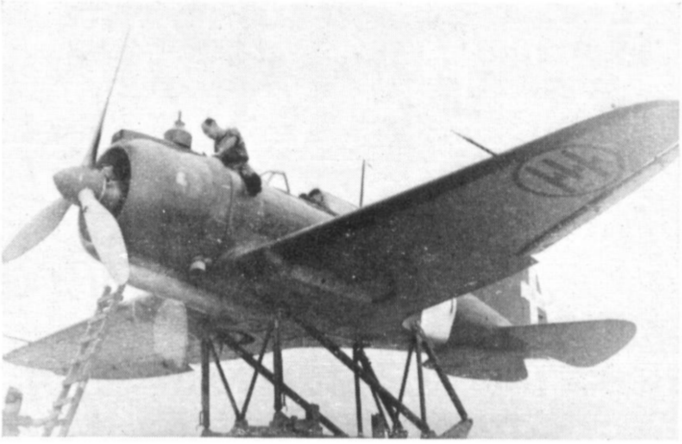
The first *Hejas* of Italian origin were tested in June 1941 under battle conditions, six aircraft of a special *Heja* Flight being dispatched to the Russian Front. The unit flew bomber escort and ground strafing missions but because of the relative lack of opposition there were few aerial engagements. In December the Flight was recalled to Hungary; but early the following year the Re.2000 again reached the front, thirteen aircraft each being issued to the 1/1 and 2/4 Fighter Squadrons at Szolnok and Kolozsvar respectively, as part of the Independent Fighter Group of the 2nd Air Force Brigade. The Group was commanded by the ace, Colonel K. Csukas; under his leadership air activity increased, even if it was still on a fairly limited scale, a situation not eased by the Brigade being under the tactical control of the army. In the engagements which the unit did achieve with Russian fighters, the *Heja* acquitted itself well, only one machine being lost through enemy action. On the other hand, the accidental losses were rather numerous; despite its good manoeuvrability and general lack of basic vices, the *Heja* was rather nose-heavy at low speeds and was inclined to be tricky in the final stages of the landing approach. Another untoward incident occurred in 1942 when a group of Re.2000's were mistaken by a *Luftwaffe* formation for Russian I-16's. One He 111 and two *Hejas* were shot down before the error became apparent; luckily the crews parachuted to safety.

Under the strain of operations on the Russian Front, aircraft and pilots became progressively ready for recall to Hungary from October 1942 onwards, and by the close of the year only one Flight remained in Russia. Following the retreats of January 1943, the last *Heja* was destroyed by its ground-crew, four machines which had managed to get into the air in the bitter winter conditions being lost later. For some months the Hungarian fighter squadrons had been receiving Bf 109's from Germany, and the Re.2000 was progressively relegated to home defence units and advanced training schools. The home defence Squadron 101 (as the 2/4 Squadron was renamed in the Hungarian Air Force re-organisation of 1943) was equipped with the type until October 1943, when the unit received its first Bf 109G's. Most of the MAVAG-built machines served with the advanced training schools, although it appears that many were thrown back into combat in the face of the final victorious onslaught of the Red Army in 1944.

SERVICE WITH THE FLYGVAPNET

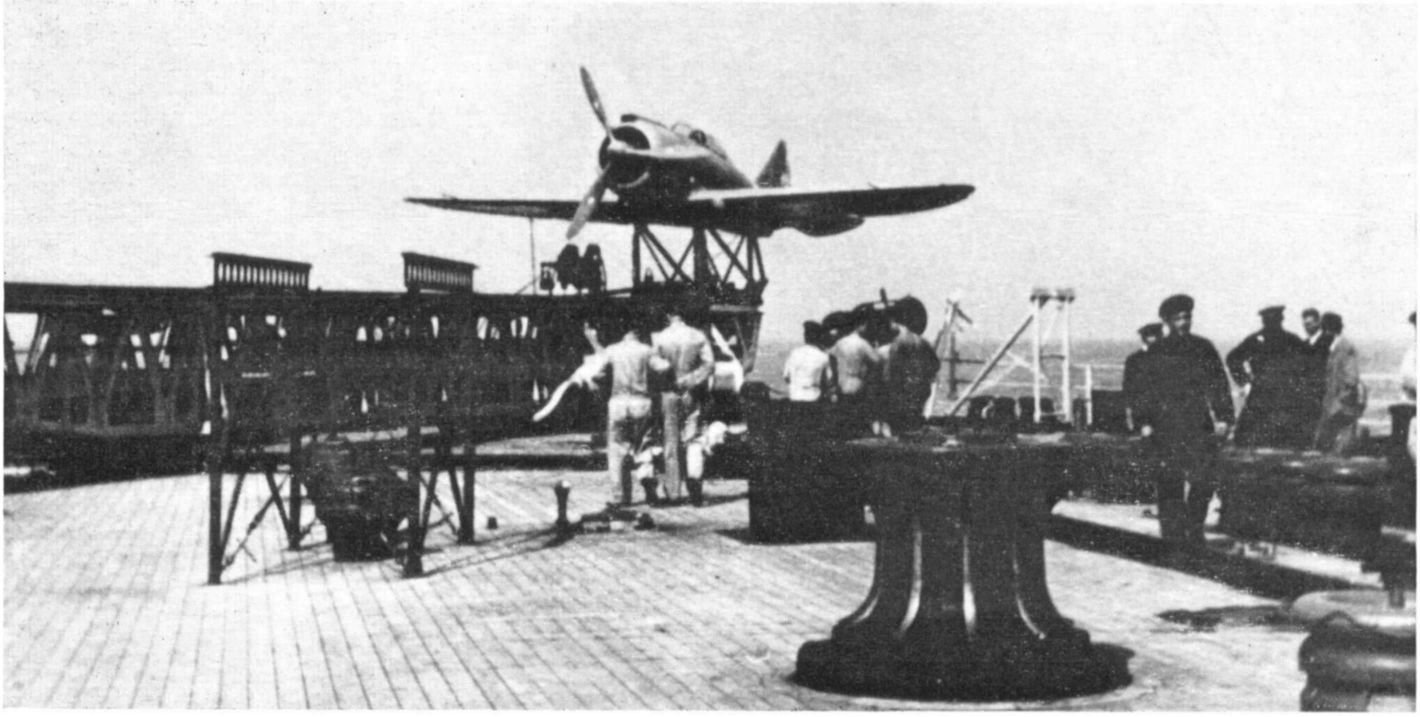
The Swedish order for 60 Re.2000's placed on 28th November 1940 was especially attractive to the Italian Government, since a good proportion of the 18,700,000 Sw.Kr. price was paid in chrome-nickel metal, vital for the starving Italian industry. Because the United States export embargo cancelled the supply to Sweden of a second batch of Seversky EP-106's (designated J 9 in Swedish service) and a batch of Vultee 48C Vanguards, recently evaluated, the choice of the Re.2000 placed at the service of the *Flygvapnet* (Swedish Air Force) a modern fighter superior not only to the aging Gloster Gladiator then in service, but also to the Seversky. It is noteworthy that despite its inspiration by the design of the American fighter and its equal power, the Re.2000 offered overall performance of a higher order.

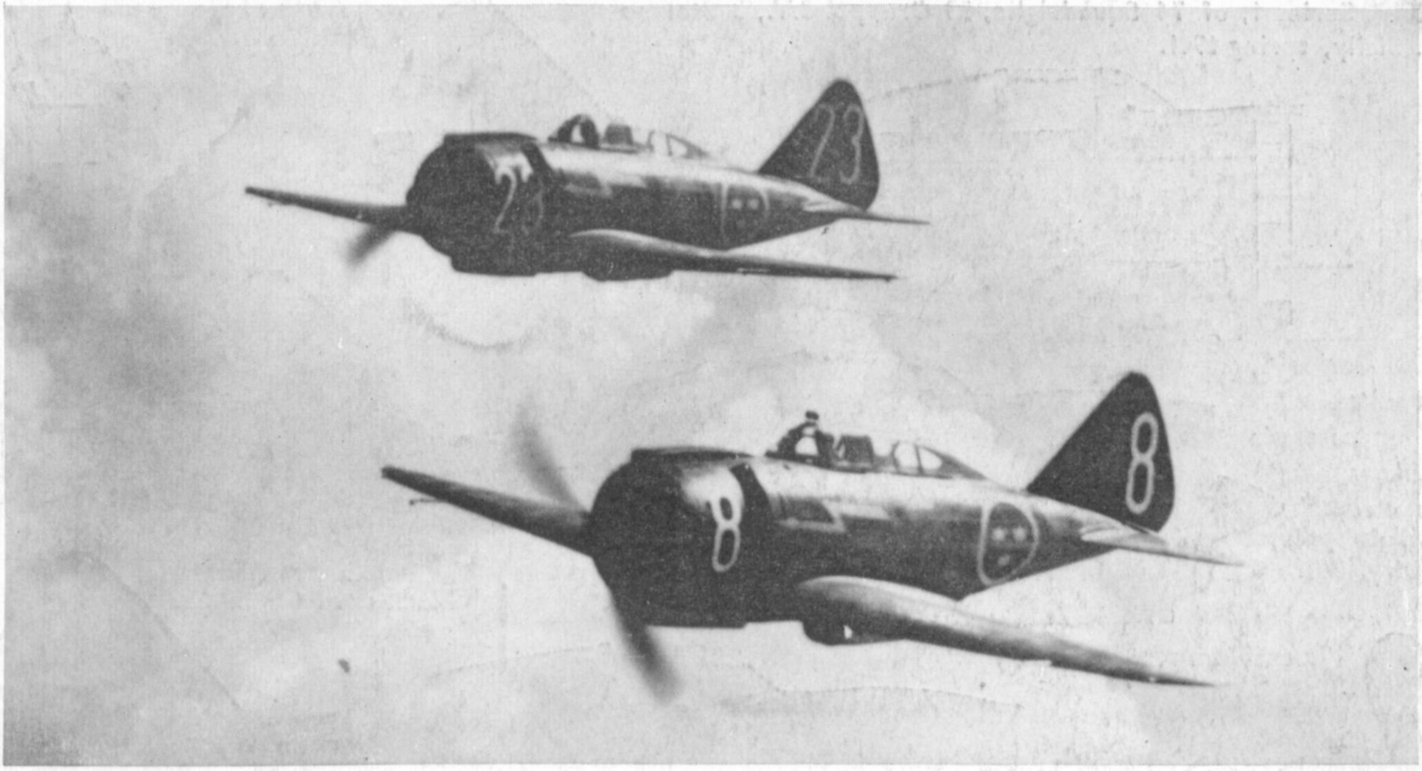
The first Swedish Re.2000 was completed early in 1941, and was transported by rail through Germany to be re-assembled at the C.V.M. (Air Force Central Workshop) at Malmen. Between May 1941 and August 1945, the Re.2000 (designated J 20) served with the F 10 Wing based at Angelholm in southern Sweden. The enthusiasm of the Swedish pilots for the little fighter's speed, climb and manoeuvrability was in sharp contrast to the machine's unpopularity with the maintenance personnel, on account of the recurring engine difficulties and cold-weather problems with the airscrew and gun synchronisation mechanisms. Being the fastest fighter in *Flygvapnet* service and virtually the only one capable of interception duties, the J 20 was used to intercept foreign aircraft intruding over neutral Sweden's borders, and to escort them to landing and internment. Numerous United States Army Air Force bombers, mostly B-17's and B-24's, were intercepted in this way after entering Sweden during return flights from missions over Germany, and escorted by the aircraft of F 10 to Bulltofta airfield. Similarly, many *Luftwaffe* aircraft of all types were intercepted throughout the war. During the Second World War the *Flygvapnet* lost five aircraft in combat. A B3 bomber (Junkers Ju 86K) landed in Germany with engine trouble, but was later returned to Sweden. Three S 16's (Caproni Ca.313 reconnaissance machines) were shot down during May 1944. The fifth aircraft was a J 20, serial 2331, which was shot down without warning in April 1945 by the gunner of a Dornier Do 24 flying boat while escorting the intruder to the nearest airfield.



Re.2000 Series III of the 1° Squadriglia FF.NN., Aviazione Ausiliaria per la Regia Marina, *being readied for a catapult launch. Ground tests of the catapult technique were carried out late in 1941 at San Elpidio airfield near Perugia.*
(Photo: G. Apostolo)

A "Catapultibile" of the Aviazione Ausiliaria p.1. Regia Marina *installed on the battleship* Vittorio Veneto *during the 1942 trials programme.*
(Photo: Marina Militare)





The Swedish Air Force operated the Re.2000 from 1941 to 1946. Designated J 20 in Flygvapnet *service, the aircraft were flown by the fighter wing F 10, based on Angelholm; the two machines illustrated here served with F 10 in 1943. The only fighter in Swedish service capable of intercepting the latest European and American types, the J 20 was given the delicate task of forcing down intruding aircraft from the belligerent nations which violated Swedish neutrality; a task not eased by the Re.2000's superficial resemblance to both the Focke-Wulf Fw 190A and the Republic P-47. At least one of the unit's aircraft was shot down by defiant combatants during the closing stages of the war.*

It was only late in 1944 that the first deliveries of the Swedish-designed and built FFVS 22 (J 22) fighter began the progressive withdrawal of the Reggiane machine from service with F 10.

© *Gianni Cattaneo, 1966.*

REGGIANE RE.2000 PRODUCTION

Type	*Number*	*Serials*	*Remarks*
Prototype	2	MM 408, MM 454	MM 454 completed as Re.2002.
Series I	70	V 401—V 470	For Hungary.
Heja	192	V 601 *et.seq.*	Built by MAVAG.
J 20	60	2301—2360	For Sweden.
Series I	28	—	Last ten completed as Srs.III.
Series III	30	—	Only ten delivered.

Readers may be interested to note other aircraft mentioned in the text which are also available as Profiles:—

Savoia-Marchetti S.M.79	Profile No.	89
Macchi C.200	„	64
Macchi C.202	„	28
Messerschmitt Bf 109E	„	40
Messerschmitt Bf 109G	„	113
Fiat CR.32	„	22
Fiat CR.42	„	16
Polikarpov I-16M	„	122
Gloster Gladiator	„	98
Boeing B-17E & F	„	77
Consolidated B-24J	„	19
Heinkel He 111H	„	15

SPECIFICATIONS

Reggiane Re.2000 Prototype, MM 408

Official Test Data: Loaded weight, including 2×12·7 mm. guns with 300 r.p.g., B.30 radio set and 80 Imp. gallons of fuel: 5,732 lb.
Maximum speed at: 6,560 ft., 281 m.p.h.; 13,120 ft., 311 m.p.h.; 19,685 ft., 320 m.p.h.
Climb to: 6,560 ft., 1 min. 41 sec.; 13,120 ft., 3 min. 57 secs.; 19,685 ft., 6 min. 23 secs.
Range: 335 miles at 292 m.p.h. at 19,685 ft. Take-off run: 545 ft.
Service ceiling: 37,730 ft.

Reggiane Re.2000 Series I (Hungarian Air Force)

Dimensions: Span, 36 ft. 1 in. Length, 26 ft. 2½ in. Wing area 219·6 sq. ft.
Weights: Empty, 4,563 lb. Loaded, 6,349 lb.
Maximum speeds: Sea level, 261 m.p.h. At 16,400 ft., 329 m.p.h.
Climb to: 13,120 ft., 4 min. 20 secs.; 19,685 ft., 7 min. 20 secs.
Service ceiling: 31,170 ft.
Range: 714 miles at 317 m.p.h. at 19,685 ft.

(MAVAG-built Heja)

Maximum speed: 301 m.p.h. at 13,780 ft.
Endurance: 2 hours 30 min.
Length: 27 ft. 6¼ in.

Reggiane Re.2000. (Swedish Air Force):

Official J 20 specification

Weights: Empty, 4,828 lb. Loaded, 6,393 lb. Max. overload, 6,724 lb.
Maximum speed: 310 m.p.h. at 16,400 ft.
Cruising speed: 280 m.p.h.
Climb to: 19,685 ft., 8 min.
Service ceiling: 33,700 ft.
Range: 808 miles.

PRINTED IN ENGLAND © Profile Publications Ltd., P.O. Box 26, 1a North Street, Leatherhead, Surrey, England by George Falkner & Sons Ltd., for McCorquodale City Printing Division, London. U.S. 2nd Class Mailing Rates applied for.